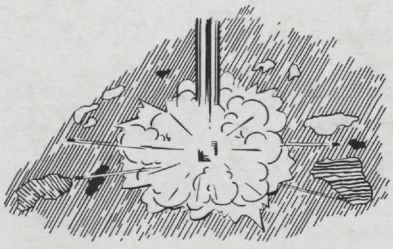
G-E Campus News

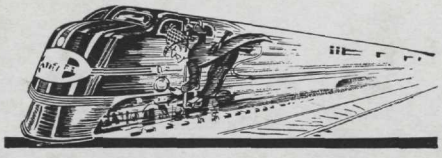
SHARPSHOOTING TWO MILES UNDERGROUND

SHOOTING HOLES through an oil-well casing at a depth of two miles underground is another problem successfully solved by electricity. The Lane-Wells Company Gun Perforator is an ingenious device used to pierce casings with steel bullets. When an oil pocket has been exhausted, the operators pierce the well casing at a different stratum, thus opening another pocket.



In order to know where to pierce the casing and how deep the gun is, G-E electric locating, weight, and depth instruments are mounted on a panel in a truck from which the shots are fired and the results recorded. Over two and one half miles of steel-sheathed cable is used to lower and fire the gun, the current for the charge being carried in the core of the cable. Accurate measurement of the depth at which the gun strikes or leaves the fluid level in the well is indicated to the operator by a weight indicator which utilizes two General Electric Selsyn motors.

In General Electric Company, numerous groups of engineers devote their entire time to the most efficient use of electricity in all types of industries. These men, former members of the Test Course, have solved many problems such as Sharpshooting Two Miles Underground.

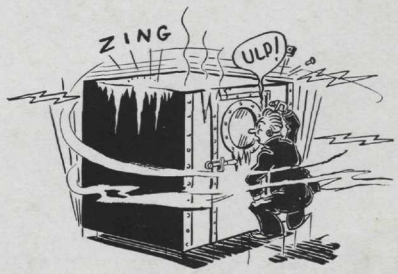


TRAIN-PERFORMANCE DETECTIVE

IN AN EFFORT to determine more accurately the performance of an electric locomotive and to calculate the most efficient motor for the train, T. F. Perkinson, R. P. I., '24, a former Test man now in the Erie Works of General Electric Company, invented a machine which performs these operations mechanically.

Computation by the step-by-step method of these calculations necessitates many hours of tedious slide-rule work; repeated adding and subtracting of time, speed, and distance increments; and reading of charts. The Transportation Calculator eliminates this work and solves the mathematics at least five times as quickly, depending upon the skill of the operator.

The Transportation Department of General Electric Company offers many opportunities to mechanical and electrical engineers in the design, construction, and production of electric locomotives, trolley cars, and trolley buses. The solutions of many interesting problems are found in this department, the Transportation Calculator being but one of them.



BOXING THE ELEMENTS

WIND, RAIN, SLEET, SNOW, arctic and tropical temperatures, six-mile altitudes, and power dives—all are found within the confines of two steel rooms in the radio-transmitter test department in the Schenectady Works of General Electric Company.

To assure perfect performance of aircraft transmitters, the equipment is placed in these two rooms where extremely severe weather conditions are simulated. Portholes of one-inch glass in the rooms permit the test men to observe the effects on the instruments without being subjected to the same strains placed upon the transmitters.

These complicated tests are made by college-trained men now on Test. The field of radio transmission from airplanes is, of course, new and progressive. The "flight rooms" provide radio engineers with a new and clearer conception of designs for radio equipment.